HOW TO PROTECT BRAINS OF YOUR LITTLE ONES IN HOT SUMMER: SUNDAY MIRROR

All over the word, temperature is on the rise. Every year the scorching heat has become a great challenge to every human. In the Indian subcontinent the temperature rise is very steep. Many people face difficulty adapting in different climates. The infants and children have to face different challenges. Their body is growing. For a growing body the need is different from adults. The high temperature becomes a great risk for them. The human brain needs a regular temperature for function. The **growing brain** is more sensitive to temperature change. It needs more protection in the summers.

Why are children more prone to heat related illness?

They have a high metabolic rate. So they produce more heat.

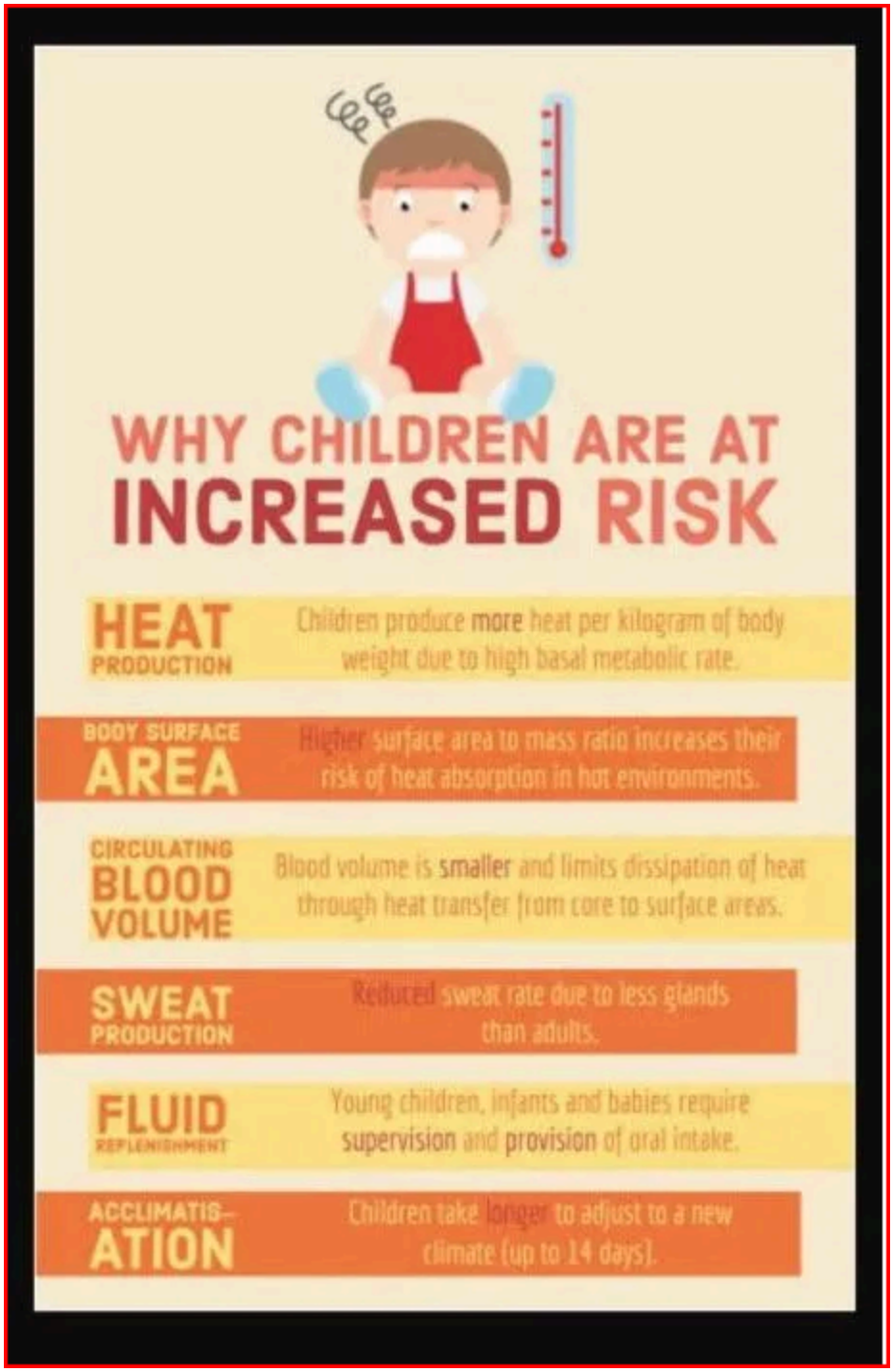
They have very high body surface area. So they lose more water.

The circulating blood volume is less.

Less amount of sweat glands.

Decrease in water intake.

Delay in adjustment to the heated atmosphere.


WHY CHILDREN ARE AT
INCREASED RISK
HEAT PRODUCTION
Children produce more heat per kilogram of body weight due to high basal metabolic rate.
BODY SURFACE AREA
Higher surface area to mass ratio increases their risk of heat absorption in hot environments.
CIRCULATING BLOOD VOLUME
Blood volume is smaller and limits dissipation of heat through heat transfer from core to surface areas.
SWEAT PRODUCTION
Reduced sweat rate due to less glands than adults.
FLUID REPLENISHMENT
Young children, infants and babies require supervision and provision of oral intake.
ACCLIMATISATION
Children take longer to adjust to a new climate (up to 14 days).

How to counter the scorching heat?

Hydration

Drink plenty of water, especially in the summer. Make sure babies get enough water by giving them regular formula or breast milk. Even if older children don't seem thirsty, give them plenty of water to drink throughout the day. Avoid caffeinated and sugary drinks, as they can worsen dehydration. Water is the primary content of our body. Dehydration leads to many unnecessary complications.

Add following amounts of water each day (depending on exact age, medical conditions, activity levels and the weather):

6 months and older: 0.5–1 cup a day
Toddlers: up to 4 cups a day
School-aged children: up to 8 cups a day
Teens: 8–12 cups a day

Dressing

One of the most effective ways to keep kids cool in the summer is to dress them in appropriate clothing. Opt for light-colored clothes that reflect the heat instead of absorbing it. Lighter shades help to prevent overheating and keep your child comfortable. Additionally, choose loose-fitting garments that allow air circulation, promoting ventilation and reducing the risk of heat-related illnesses. Use cap and goggles while going out.

Avoid peak heat

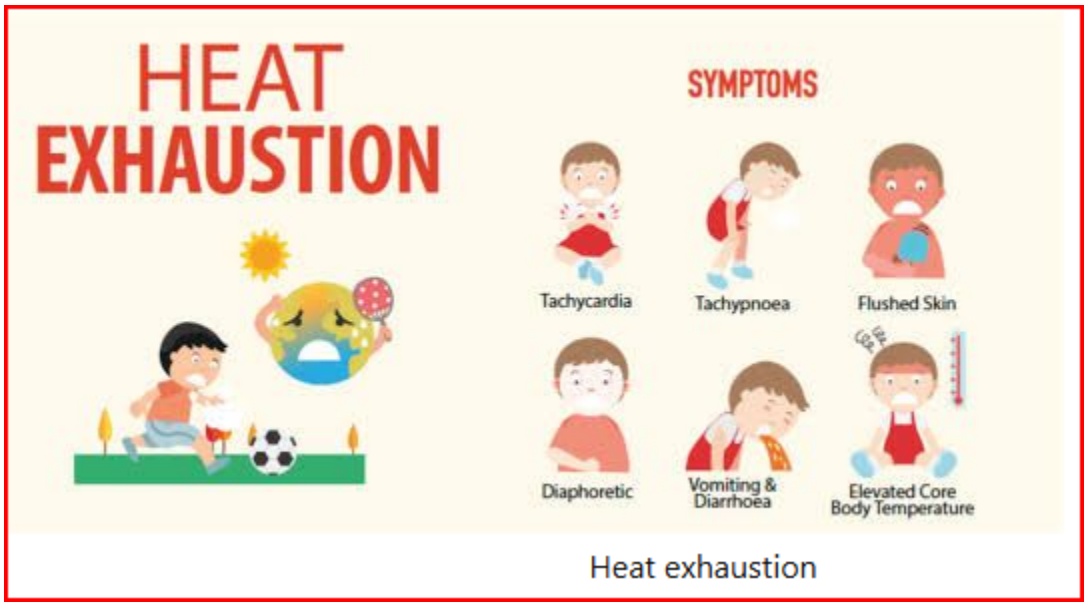
Avoid peak heat. Don't keep them outdoors for a long time. Decrease sun time. Use sunscreen lotion. Remain indoors. The schools should be scheduled early in the morning.

Take adequate rest and sleep

Too much play will make the brain of a child more exhausted. Sleep well and take rest on sunny days. Too much exhaustion will cause heat exhaustion. Sleep is much necessary for the brain. Adequate sleep will help in cleansing the metabolic products of the brain. The circulation of glymphatic systems helps in removing heat induced byproducts.

Avoid metal surfaces

The metal surfaces absorb more heat and cause injuries to children. Avoid metal surfaces in child's proximity.



Heat exhaustion

Despite taking precautions, it's important to be vigilant for signs of heat-related illnesses. Heat exhaustion and heatstroke can manifest through symptoms such as dizziness, fatigue, headache, nausea, rapid breathing, and muscle cramps. If your child exhibits any of these

signs, move them to a cool area, offer water, and seek medical attention if symptoms worsen or persist.